

ABSTRACT OF THE DISCLOSURE

There is disclosed a gradient structure material comprising a substrate 1 and a functional material 2 formed
5 on the substrate. The gradient structure material is thermally treated while a desired gradient temperature is applied to a specific direction and a specific region of the functional material on the substrate. Consequently, without adding "gradient structure" of a component
10 concentration, a content of oxide, or a crystal structure, the functional material on the substrate is provided with useful function which is not heretofore existed, or a performance can be enhanced unlike a conventional technique.